Remarks

Claims 42-45, 53, 57, 58, 62-66 and 69-172 are pending and subject to a restriction requirement. Claims 42, 53, 57, 62, 63, 65, 66, 69-77, 162 and 167 have been amended. Claim 172 is newly added. Claims 54-56, 59-61, 67 and 68 have been canceled.

Claims 42, 53, 57, 62, 63, 65, 66, 69-77, 162, and 167 have been amended to more clearly recite what the Applicant regards as his invention. Claims 42, 162 and 167 have been amended to recite that the amplification reactions within the claimed methods are performed using rolling circle amplification. Support for these amendments can be found in the Specification at least at p. 2, lines 22-23, and p. 4, lines 28-29. Claim 42 was also amended to remove step (e). This step has been placed in new dependent claim 172. Claims 53, 57, 62, 63, 65, 66 and 69 have been amended to depend from claim 42. Claims 53 and 57 have also been amended to remove steps (a) through (d), which appear in base claim 1. Claims 70-77 have been amended to recite that the claimed kits and linear vectors are for use in rolling circle amplification. Support for these amendments can be found in the specification at least at pl. 16, lines 2-4 and p. 28, lines 20-21. Applicant respectfully submits that these amendments were not made for any reason related to patentability.

Response to Restriction Requirement

In the Office Action dated September 15, 2003, claims 42-45 and 53-171 were divided into 6 groups: Group I – claims 42-45 and claims 162-171, drawn to an *in vitro* method of cloning nucleic acid molecules; Group II – claims 53-61, drawn to an *in vitro* method of cloning nucleic acid molecules; Group III – claims 62-69, drawn to a method of isolating and amplifying nucleic acid molecules; Group IV – claims 70-72 and claims 74-76, drawn to a kit for isolating and amplifying nucleic acid molecules; Group V – claims 73 and 77, drawn to a kit for isolating and amplifying nucleic acid molecules; and Group VI – claims 78-161, drawn to a method of isolating and amplifying nucleic acid molecules.

In response, applicant elects Group I, with traverse, to be examined. Applicant notes that claims 43-45, 53, 57, 58, 62-66, 69 and 172 all depend from claim 42 and thus are drawn to a single invention, the invention of elected Group I. Accordingly, applicant requests that at least

claims 53, 57, 58, 62-66, 69 and 172 be examined along with the Group I claims 42-45 and 162-171.

The Office Action sets forth reasons why the inventions are distinct and indicates that examining more that one group would require different or distinct searches. For a restriction requirement to be valid, it must establish both that (1) the inventions are either independent or distinct, and (2) that examination of more than one of the inventions would constitute a burden to the Examiner. Applicant respectfully submits that these criteria have not been met for the claims as presently amended and traverses the restriction requirement for the following reasons.

1. The Office Action states that the claims in Groups I and II are distinct or/and independent because they are directed to methods that comprise different method steps. In particular, the Office Action indicates that differences in step (e) in claim 53 of Group II and claim 42 of Group I renders the two groups of claims distinct or/and independent, resulting in different searches to be carried out. First, as discussed above, the remaining claims of Group II, claims 53, 57, 58 and 61, now depend form claim 42 and are thus directed to the same core invention, that being a method of amplifying nucleic acids using rolling circle amplification. The claims in Groups I and II are based on common steps (steps (a) through (d)). Step (e) now appears only in dependent claims and reflects different embodiments of the core method. As seen in the Specification at least at p. 3, lines 8-15, once the nucleic acid molecule is amplified, it can be used for any purpose, with several known examples listed.

Second, Applicant respectfully submits that performing different searches for groups of claims, especially those classified in the same class, does not constitute a serious burden to the Examiner. While the Applicant agrees that a different search might have been needed on the two groups of claims, the searches would not have been limitless or without boundaries that can be easily identified. It is respectfully noted that many patents have issued containing method claims comprising different steps, and applicant respectfully asserts that the difference in step (e) of the claims within Groups I and II are not separate components of the invention that require their own search, but rather are embodiments that should be searched in addition to that of the base method.

Thus, for these additional reasons, rejoinder and examination of claims 42-45, claims 162-171, and claims 53, 57 and 58 is respectfully requested.

2. The Office Action states that the claims in Group I and Group III are distinct or/and independent because they are directed to methods comprising different method steps. As discussed above, the remaining claims of Group III, claims 62-66 and 69, now depend from claim 42 and are drawn to the same method as the claims of Groups I and II. Regarding step (c), applicant respectfully submits that step (c) reflects a specific embodiment of the base method.

Thus, rejoinder and examination of claims 42-45, claims 162-171, and claims 62-66 and 69 is respectfully requested.

3. The Office Action states that the method claims of Group I, II, III, and VI and the product claims of Groups IV and V are related as a product and process of use and are distinct because the products as claimed can be used in a materially different process, such as in the methods of the other group. The MPEP (806.05(h)) states that "A product and a process of using the product can be shown to be distinct inventions if either or both of the following can be shown: (A) the process of using as claimed can be practiced with another materially different product; or (B) the product as claimed can be used in a materially different process (emphasis added)". Applicant respectfully asserts that the products in Claims IV and V are used in the same process in the methods of Group I as they are in the methods of Group II, Group III and Group VI. As amended, the claims in Groups IV and V recite that the kit is for use in rolling circle amplification, thus, it is respectfully asserted that the products are used for the same process in the methods of each of the groups.

Thus, rejoinder and examination of claims 70-77 with claims 42-45 and 162-171, claims 53, 57 and 58, claims 62-66 and 69, and claims 78-161 is respectfully requested.

4. The Office Action states that the claims in Groups I and VI are distinct or/and independent because they are directed to methods that comprise different method steps. In particular, the Office Action indicates that the presence of step (e) in claim 42 of Group I results in a different search having to be carried out. Applicant notes that the method of Group VI can be performed as part of the method of Group I and thus would not constitute a burden to search. Compare, for example, claims 62, 65, 66 and 69 with the independent claims of Group VI. The

search for such embodiments within the method of Group I would be co-extensive with any search for the method of Group VI. The result is that there would be no significant additional search required in examining both groups of claims. Further, applicant respectfully submits that performing different searches for groups of claims, especially those classified in the same class, does not constitute a serious burden to the Examiner. The search required, even if different in some particular, is not limitless or without boundaries that can be easily identified. It is respectfully noted that many patents have issued containing method claims comprising different steps, and applicant respectfully asserts that the presence in step (e) of the claims with in Group I is not a separate component of the invention that requires its own search, but rather is an embodiment that should be searched *in addition* to that of base method.

Thus, rejoinder and examination of claims 42-45 and 162-171, and claims 78-161 is respectfully requested.

5. The Office Action states that the claims in Group II and Group III are distinct or/and independent because they are directed to methods comprising different method steps. In particular, the Office Action indicates that step (c) in claim 62 of Group III is not present in the claims of Group II, and thus would a different search to be carried out. As discussed above, the remaining claims of Group III, claims 62-66 and 69, now depend from claim 42 and are thus directed to the same core invention. The claims of Groups II and III are based on common steps (steps (a) through (d) of claim 42). Applicant respectfully asserts that step (c) of claims 62-66 and 69 is not a separate component of the invention that requires its own search, but rather is an embodiment that should be searched in addition to that of the base method.

Thus, rejoinder and examination of claims 53 and 57 and claims 62-66 and 69 is respectfully requested.

6. The Office Action states that the claims in Groups II and VI are distinct or/and independent because they are directed to methods that comprise different method steps. In particular, the Office Action indicates that the presence of step (e) in claim 53 of Group II results in a different search having to be carried out. Applicant notes that the method of Group VI can be performed as part of the method of Group II and thus would not constitute a burden to search. Compare, for example, claims 62, 65, 66 and 69 (part of the claims of combined Groups I, II and

III) with the independent claims of Group VI. The search for such embodiments within the method of Group II would be co-extensive with any search for the method of Group VI. The result is that there would be no significant additional search required in examining both groups of claims. Further, applicant respectfully submits that performing different searches for groups of claims, especially those classified in the same class, does not constitute a serious burden to the Examiner. The search required, even if different in some particular, is not limitless or without boundaries that can be easily identified. It is respectfully noted that many patents have issued containing method claims comprising different steps, and applicant respectfully asserts that the presence in step (e) of the claims with in Group I is not a separate component of the invention that requires its own search, but rather is an embodiment that should be searched *in addition* to that of the base method.

Thus, rejoinder and examination of claims 53 and 57 and claims 78-161 is respectfully requested.

7. The Office Action states that the claims in Groups IV and V are distinct or/and independent because they are directed to methods that comprise different method steps. In particular, the Office Action indicates that the presence of an overlap in the linear vector in claim 73 of Group V results in a different search having to be carried out. First, Applicant respectfully submits that the claims in Groups IV and V are directed to the same core invention, that being a linear vector for amplifying nucleic acids using rolling circle amplification. Second, applicant respectfully submits that performing different searches for groups of claims, especially those classified in the same class, does not constitute a serious burden to the Examiner. While there are some differences in the two groups of claims, these differences are no more than is commonly found in dependent claims drawn to the same invention. This does not constitute a sufficient burden to support the present restriction requirement.

Thus, rejoinder and examination of claims 70-72 and 74-76 and claims 73 and 77 is respectfully requested.

Favorable consideration of claims 42-45, 53, 57, 58, 62-66 and 69-172 is earnestly solicited.

hereby authorized to charge any fees which may be required to Deposit Account No. 14-0629.

Respectfully submitted,

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